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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,395

09/11/2003

Stefan Popescu

P01.0545

5643

26574

7590

03/07/2005

SCHIFF HARDIN, LLP
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EXAMINER

SUCHECKI, KRISTYNA

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,395

Applicant(s)

POPESCU ET AL.

Examiner

Krystyna Suchecki

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0104</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 6 and 7 have characters and lines that are not uniformly thick or well defined (poor line quality). See 37 CFR 1.84(l). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Unger (US 2002/0075997).

4. Regarding Claim 1, Unger teaches a method for automatically controlling X-ray dosage for producing an image by computed tomography (Paragraph 7 as combined with Paragraph 14), comprising the steps of: using an X-ray tube in a computed tomography apparatus operable with a tube current, obtaining a plurality of reference measurements by irradiating a plurality of different phantoms, with respectively different radiation attenuation, with X-rays from the X-ray tube, to produce a computed tomography image of each phantom (Paragraphs 34-37); for each image of each of said phantoms, setting a tube current of said X-ray tube that produces a predetermined level of noise in the image for that phantom representative of an acceptable image quality (Paragraphs 37-38); and subsequently producing a computed tomography image of an examination subject with said computed tomography apparatus by irradiating the examination subject with X-rays from said X-ray tube, and automatically limiting the tube current of the X-ray tube for respective regions of said examination subject exhibiting attenuation comparable to the attenuation of at least one of said phantoms (Paragraphs 30-33), dependent on the reference measurement for said at least one of said phantoms, to obtain a noise level and image quality in the image of said at least one region of the examination subject comparable to the noise level and image quality in the image of that phantom (Paragraphs 24, 38).

5. Regarding Claim 2, Unger teaches a method as claimed in claim 1 comprising employing a water phantom as said phantom (Paragraph 34).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Unger.

8. Regarding Claim 3, Unger teaches a method as claimed in claim 2 comprising storing values for each reference measurement for each phantom in a table for different load currents, and automatically adjusting said tube current with a tube load computer, connected to said X-ray tube and having access to said table (Paragraphs 37-38). Unger also teaches the method as an improvement to CT devices (Paragraphs 7, 14) and illustrates that chest “scans” (Paragraph 29) are performed, both of which require a source to move in relation an area to be imaged. A region of an area of interest is used to optimize system parameters for the entire region of interest, at which point the patient is re-imaged (Paragraphs 41-42).

9. Unger does not expressly state that the tube current is automatically adjusted while irradiating an examination subject.

10. Sones teaches an imaging technique where a source moves in relation to an object area to be imaged (Column 6, line 54-68) wherein the current on an X-ray source is automatically adjusted as the area is irradiated and scanned for the benefit of maintaining a uniform flux at a detector plane to compensate for a patient thickness (Column 7, lines 43-53).

11. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the tube current automatically while irradiating an examination

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subject in Unger in order to make a complete scan of a patient, encompassing more than one region of interest wherein the tube current is adjusted during scanning for the benefit of maintaining a uniform flux at a detector plane to compensate for a patient thickness (Sones, Column 7, lines 43-53).

Conclusion

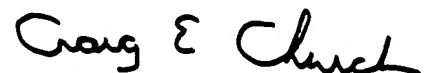
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495.

The examiner can normally be reached on M-F, 9-5.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Craig E. Church
Primary Examiner